

What is claimed is:

1. A brake drive comprising:

a drive shaft having a journal extending radially from the longitudinal axis of said drive shaft; a contractible brake ring having opposing ends defining a gap, said gap being in rotationally driveable communication with said journal of said drive shaft, said contractible brake ring having an exterior surface and having at least one detent disposed within the circumference of said ring and said contractible brake ring having a structural tension biasing said exterior surface outward; a housing circumscribing said contractible brake ring, said housing having an exterior portion capable of receiving an external force and an interior portion having a surface in frictional contact with said exterior surface of said brake ring, said exterior portion of said housing being moveable independently of said drive shaft and said interior portion of said housing; said exterior portion_housing further having at least one boss fixedly attached to said exterior portion of said housing, said boss being disposed within said at least one detent of said contractible brake ring in contracting cooperation therewith; whereby friction between said exterior surface of said contractible brake ring and said surface of said interior portion of said housing arrests rotation of said journal of said drive shaft until force on said exterior portion of said housing moves said at least one boss of said housing, said boss transferring the force to said at least one detent of said brake ring, whereby said ring is contracted, said contraction releasing frictional contact between said surface of said interior portion of said housing and said exterior surface of said contractible brake ring, thereby allowing rotation of said drive shaft, the force applied to said exterior portion of said housing being transferred through said at least one boss of said housing, said at least one detent of said contractible brake ring and against said journal of said drive shaft by one of said opposing ends of said contractible brake ring, said movement of said boss being non coaxial with said drive shaft.

2. The brake drive of Claim 1 further comprising an expander disposed between the ends of said brake ring and biasing the ends apart.

3. The brake drive of Claim 1 wherein said contractible brake ring further comprises a plurality of concentric tensioning rings.

4. The brake drive of Claim 1 wherein the internal surface of said housing and the

external surface of said brake ring are irregular.

5. The brake drive of Claim 4 wherein topographic features of the internal surface of said housing and the external surface of said brake ring are disposed perpendicular to the direction of rotation of said drive shaft whereby said surface topography resists rotation.

6. The brake drive of Claim 1 wherein the exterior surface of said brake ring has circular keyways and spline projections increasing brake force.

7. The brake drive of Claim 1 further comprising at least one boss on the exterior surface of said brake ring.

8. The brake drive of Claim 1 further comprising a layer of material fixedly attached to the exterior surface of said brake ring, said layer having an exterior surface in frictional communication with the interior surface of said housing, and said layer having a higher coefficient of friction than said brake ring.

9. The brake drive of Claim 1 wherein said housing further comprises a lever.

10. The brake drive of Claim 11 wherein said expander is selected from the group consisting of: a lever, a cam, an eccenter, a spring, a pneumatic device, a hydraulic device, a magnetic device, and electromagnetic device, a gear and a screw.